#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024869 Address: 333 Burma Road **Date Inspected:** 01-Mar-2011

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 1500 **OSM Departure Time:** 300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Changxing Island **Location:** Shanghai, China

**CWI Name:** Sha Zhi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

**Bridge No:** 34-0006 **Component:** OBG

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Vikram Singh was present during the times noted above for observations relative to the work being performed at ZPMC.

**WELDING** 

OBG Bay 14

This QA Inspector randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW)

This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as Seg3007G-040 located on Floor Beam of the OBG Segment 13AE. The welder is identified as 050242. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as Seg3011C-002 located at Deck Panel diaphragm of the OBG Segment 13CE. The welder is identified as 044790. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

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This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as SEG3007J-031 located on Floor Beam of the OBG Segment 13AE. The welder is identified as 055564. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as SEG3019V-229 located on Edge Beam to Floor Beam of the OBG Segment 14E. The welder is identified as 051356. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

Shielded Metal Arc Welding (SMAW)

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as DP3160-001-005 located on Longitudinal Diaphragm Connection Plate of the OBG Segment 14E. The welder is identified as 050969. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair & B-WR20269.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3019U-003 located on the OBG Segment 14E. The welder is identified as 215553. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair & B-CWR2822.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3019BC-016 located on SA Stiffener of the OBG Segment 14E. The welder is identified as 037740. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-P2114-FCM-1.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3019BB-147 located on Bottom Plate to AP of the OBG Segment 14E. The welder is identified as 044779. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair & B-CWR2737.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as DP3162-001-407 located on U-Rib to Deck Panel Diaphragm of the OBG Segment 14E. The welder is identified as 049861. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-P-2112-FCM-1.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as SEG3019Z-008 located on Longitudinal Diaphragm to AP of the OBG Segment 14E. The welder is identified as 067610. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-U4b-FCM-1.

During random in process observations of OBG Segment 14E, this QA inspector observed ZPMC personnel performing Ultrasonic Testing on weld joint identified as Seg3019D-323 located on Floor Beam to Bottom Plate

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of OBG Segment 14E. This QA performed Visual Testing (VT) of the joint and found that appeared to be in general compliance with the applicable contract documents. For more details please see attached photo below:

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



## **Summary of Conversations:**

No relevant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Singh,Vikram     | Quality Assurance Inspector |
|---------------|------------------|-----------------------------|
| Reviewed By:  | Patterson,Rodney | QA Reviewer                 |